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09/394,345 09/13/99 TAKAYAMA

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EXAMINER

OSORIO, R

ART UNIT

PAPER NUMBER

2778

DATE MAILED:

04/21/00

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/394,345

Applicant
Takayama et al.

Examiner
Ricardo Osorio

Group Art Unit
2778



☒ Responsive to communication(s) filed on Sep 13, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 11-20 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 11-20 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☒ received in Application No. (Series Code/Serial Number) 08/547,919

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Under claim 11, in lines 8-9, it reads: "said one of second thin film transistors is connected to a gate of one of said first thin film transistors". This limitation is not consistent with the specification and drawings, in which, instead, the first TFT is connected to a gate of the second TFT (see specification, page 6, lines 19-21, and Fig. 2)

2. Claim 11 recites the limitation "said one of second thin film transistors" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim Objections

3. Claims 11-13 are objected to because of the following informalities: Under claim 11, in lines 8-9, it reads: "said one of second thin film transistors is connected to a gate of one of said first thin film transistors". This limitation is not consistent with the specification and drawings, in which, instead, the first TFT is connected to a gate of the second TFT (see specification, page 6, lines 19-21, and Fig. 2). Examiner will assume, considering specification and drawings, that what applicant intends to claim is that the first TFT is connected to the gate of the second TFT. Appropriate correction is required.

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Claim Rejections - 35 USC § 103

4. Claims 11 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lou et al. (4,042,854) in view of applicant's admitted prior art.

Under claims 11, 14 and 17, Lou teaches of an active matrix luminescent display device comprising a substrate (see col. 1, line 68), a plurality of light emissive elements arranged in a matrix over said substrate, first TFTs (T1, Fig. 3) over said substrate, second TFTs (T2, Fig. 3) over said substrate and connected to the light emissive elements (EL, Fig. 3), respectively, wherein one of said first TFTs is connected to the gate of one of said second TFTs, a first signal line (20, Fig. 1) and a second signal line intersecting each other (16, Fig. 3), the first signal line (20) is connected to a gate of the first TFT (T1, Fig. 3) and the second signal line (16) is connected to the source or drain of the first TFT (T1), in the second TFT the other one of the source or drain of the first TFT is connected to a gate of the second TFT (see Fig. 3), an electroluminescent element (EL) electrically connected to the source or drain of the second TFT (see Fig. 3), a power supply line electrically connected to the other one of the source or drain of the second TFT (see Fig. 3), and a capacitor (CS, in Fig. 3) formed between the gate of the second TFT and the source or drain of the second TFT to which said power supply line (18) is connected (see Fig. 3).

Under claims 11, 13, 14 and 17, Lou teaches of an electroluminescent display device, but fails to teach of that said device is an organic electroluminescent device.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any kind of luminescent display device including organic electroluminescent or non-organic electroluminescent, in the device of Lou, because applicant's admitted prior art states that an active matrix type flat-panel display device with light emissive elements and respective drive TFTs which are two dimensionally arranged along X-axis and Y-axis in matrix is known (see spec. page 1, lines 11-14).

Under claims 15, 16, 18 and 19, Luo teaches a video signal applied to the gate of the second TFT through said second signal line (16) and said first TFT (T1) and said power supply line extends parallel with said second signal line (see Figs. 3 and 4 and col. 2, lines 17-30).

5. Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luo et al. in view of applicant's admitted prior art, as applied to claims 11 and 13-19 above, and further in view of Fischer (3,885,196).

Under claims 12 and 20, the device of Luo, as anticipated by applicant's admitted prior art, fails to teach of an electroluminescent display device comprising a first shift register and a second shift register electrically connected to first thin film transistors.

Under claims 12 and 20, Fisher teaches of a first SR and a second SR electrically connected to a plurality of first TFTs (see Figs. 1-2, col. 1, lines 27-31 and 42-44, and col .3, lines 29-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the shift registers, as taught by Fisher, in the combined device of Luo and

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applicant's admitted prior art because shift registers are commonly known to be used in the art of electroluminescent display devices to convert parallel data to serial data.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricardo Osorio whose telephone number is (703) 305-2248. The examiner can normally be reached on Monday-Thursday from 7:30 AM to 6:00 PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:


(703) 308-9051, (for formal communications intended for entry)

Or: (703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Ricardo Osorio

April 12, 2000


BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
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